National Park Service U.S. Department of the Interior



Klamath Network Featured Creature May 2007

Coastal (Pacific) Giant Salamander (Dicamptodon tenebrosus)

FIELD NOTES:

General Description:

The Coastal (Pacific) Giant Salamander is the largest terrestrial salamander in North America. There are four species in the *Dicamptodon* genus in the Family Dicamptodontidae. Pacific Giant Salamander adults can be up to 14 inches (36 cm) long, with the tail comprising up to 40% of this length. The species is identifiable by its robust body, stout limbs, and massive head. Larvae have tail fins and short, bushy, red gills. Adults have 12-13 distinct costal grooves and are marbled dark and light brown and copper dorsally and white to light gray ventrally.

Behavior:

Adults forage on the forest floor on rainy nights, typically within 50 m of streams. Their hardened toes aid in climbing and digging, and they frequently dig for forage or protective cover. The species is active year-round, but less so in the winter. Females reach sexual maturity at age five or six and then reproduce every two years, laying clutches of 85-200 eggs in the spring and defending them until they hatch about six months later. Safeguarding the eggs from predation and cannibalism is costly for the female; she eats little to nothing during this time. Larvae typically transform into the adult stage between 18 months and three years of age, depending on the stream environmental conditions. However, not all individuals progress to the adult form; some stay and reproduce in larval form throughout their life (a phenomenon called neoteny). When threatened, adults produce a low rattling vocalization and deliver a strong bite with their powerful jaws. They will also thrash about and secrete foul-tasting chemicals from glands on the top of their tails.

Where to see it in the Klamath Parks: Pacific Giant Salamanders are found at Oregon Caves, Crater Lake, Redwood, and Whiskeytown.



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Pacific Giant Salamander at Oregon Caves.

Photo by Andy Duff

Feeding:

The Pacific Giant Salamander is a generalist predator. Larvae will feed on anything that comes near, including aquatic invertebrates and fish hatchlings. Adults dine on insects, slugs, snails, worms, amphibians, lizards, snakes, and small mammals. Feathers have also been found in the stomachs of Pacific Giant Salamanders

Habitat:

Dicamptodon tenebrosus occur in wet forests near clear cold streams, rivers, lakes, and ponds and prefer faster moving waters. Cover is another vital characteristic of their habitats. They avoid direct sunlight and brightly lit areas, sticking to damp darker areas that are better for camouflaging and keeping their skin and eggs moist. Commonly, they are found behind and under rocks and logs.

Distribution:

The species is found from sea level to 7,000 ft (2128 m), but mostly below 3,100 ft (942 m). They live in suitable habitats from northern California to southern British Columbia. The salamander is more abundant in unsilted streams than in silted ones.

Status:

Pacific Giant Salamanders are generally rare. This is in part due to predation, slow reproductive rates, and limited habitat, compounded by the effects of human activities. Studies have indicated population declines after logging of old-growth forests. The species is "red-listed" in British Columbia, meaning it is under consideration for threatened or endangered status.

Additional Information:

For more information, visit: http://amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-bin/amphibiaweb.org/cgi-genus=ewhere-genus=Dicamptodon&where-species=tenebrosus&rel-genus=equals&rel-species=equals